## Surf

Background: Shading/object placement puzzle style created by Izak Bulten in 2015 and now more fully explored here. Surf was inspired by Nurikabe islands and LITS paths. Along with Turf, which is the next book section, Surf is an exploration of bicolor shading logic that can yield fruitful patterns. (John Bulten, creator of Turf, composed two puzzles for this section.)

Rules: Shade some white cells black so that the grid is divided into white and black regions. Cell with numbers cannot be shaded. Each white region must contain exactly one number and have the same area in cells as that number. Two white or two black regions may only touch diagonally. Each black region must be exactly specified by one shape graph given below the grid, where graph edges represent one-cell-wide straight paths with variable lengths, and graph nodes represent ends, turns, and branch points. Graphs can be rotated and reflected, and, if multiple graphs are given, not all need be used. (In puzzle 8, the O shape can be represented by a $2 \times 2$ square or any larger rectangular shape, using 1 -cell wide paths for each side.)

Example by John Bulten


## 1 - LITS



Shape Library: $\llcorner!!\square$

